

WHAT IS CLAIMED IS:

1. A process for producing an artificial bone model in accordance with a selective laser sintering process which comprises extending a powder
5 material for sintering comprising 30 to 90 parts by weight of powder of a synthetic resin and 10 to 70% by weight of an inorganic filler to form a thin layer and irradiating a portion of the thin layer of the powder material for sintering in a shape formed based on tomographic information of a natural bone with laser light so that the powder material
10 for sintering of the irradiated portion of the thin layer is sintered, the extension of the powder material for sintering to form the thin layer and the irradiation of the portion of the thin layer with laser light for sintering being conducted repeatedly.
- 15 2. A process according to Claim 1, wherein the powder of a synthetic resin comprises fine particles having a spherical shape.
- 3 A process according to Claim 1, wherein the artificial bone model is used for educational training.
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4. A process according to Claim 1, wherein the artificial bone model is used for studying a plan for curing before a surgical operation.
5. A process according to Claim 1, wherein the average diameter of fine
25 particles of the powder of a synthetic resin is in a range of 5 to 200 μ m.

6. A process according to Claim 1, wherein the powder of the synthetic resin is the powder of at least a resin selected from the group consisting of nylons, polycarbonates, polyesters, polyacetals, polyethylene, polypropylene, polyvinyl chloride, polystyrene, polybutylene, ABS resins, cellulose-based resins, acrylic resins, epoxy resins and fluororesins.
7. A process according to Claims 1, wherein the powder of the synthetic resin is powder of a nylon resin.
8. A process according to Claim 1, wherein the inorganic filler is glass beads.
9. A process for producing an artificial bone model of radiolucent areas in human bone according to Claim 1, wherein the CT data of the area from the tomographic information of a natural bone is reversed.
10. An artificial bone model produced by the process according to Claim 1.
11. An artificial bone model produced by the process according to Claim 9.
12. A process according to Claim 6, wherein the average diameter of fine particles of the powder of a synthetic resin is in a range of 5 to 200 μ m.

13. A process according to Claim 12, wherein the synthetic resin is powder of a nylon resin.
14. A process according to Claim 12, wherein the powder of the synthetic resin comprises fine particles having a spherical shape.
15. A process according to Claim 14, wherein the inorganic filler is glass beads.
16. A process according to Claim 15, wherein the artificial bone model of radiolucent areas in human bone is obtained by reversing CT data of the area from the tomographic information of a natural bone.
17. An artificial bone model produced by the process according to Claim 15.
18. An artificial bone model produced by the process according to Claim 16.